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The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

We Claim:

1. (original) A system of determining tire pressure faults in a vehicle comprising:
  - determining a distance a first tire has traveled;
  - determining a distance a second tire has traveled;
  - comparing the first and second distances to determine if a pressure fault has occurred in said first or second tire.
2. (original) The system of Claim 1 wherein the distances are calculated using pulse generating sensors coupled to the first and second tires, wherein a series of pulses equate to a distance.
3. (original) The system of Claim 2 wherein a ratio of pulses is used to determine a tire pressure fault.
4. (original) A system of determining tire pressure faults in a vehicle comprising:
  - determining distances a plurality of tires have traveled;
  - comparing the distances to determine if a pressure fault has occurred in said plurality of tires.
5. (original) The system of Claim 4 wherein the distances are calculated using pulse generating sensors coupled to the first and second tires, wherein a series of pulses equate to a distance.

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6. (original) A system for detecting tire pressure imbalance comprising:
  - a vehicle;
  - a plurality of wheels coupled to said vehicle;
  - a plurality of sensors operatively coupled to said plurality of wheels, each said sensor sensing one of said plurality of wheels, said sensors generating pulses indicative of distance traveled by each said wheel;
  - a controller for receiving said pulses generated by said sensors;
  - wherein a tire pressure fault is determined by analyzing the distance traveled by each said wheel.
7. (original) The system of Claim 6 wherein said plurality of sensors are coupled to an anti lock brake system and said anti-lock brake system transmits said pulses to said controller.
8. (New) The system of Claim 6 wherein a tire pressure fault is determined by analyzing a ratio of distances traveled by at least two wheels.
9. (New) The system of Claim 6 wherein speed is not used to determine a tire pressure fault.
10. (New) The system of Claim 6 wherein the determination of a tire pressure fault is independent of time.